International Journal of Technology Assessment in Health Care, 28:3 (2012), 315–320.

doi:10.1017/S0266462312000311

EARLY AWARENESS AND ALERT ACTIVITIES IN LATIN AMERICA: CURRENT SITUATION IN FOUR COUNTRIES

Andres Pichon-Riviere
Institute for Clinical Effectiveness and Health Policy; University of Buenos Aires
email: apichon@iecs.org.ar

Flávia Tavares Silva Elias, Verónica Gallegos Rivero
Ministry of Health

Claudia P. Vaca
Universidad Nacional de Colombia

Objectives: The aim of this study was to briefly describe the current state of early awareness and alert (EAA) activities and systems in four Latin-American countries (Argentina, Brazil, Colombia, and Mexico).
Methods: Key informants were selected and completed an open questionnaire that included the following domains: current state of EAA activities and systems in each country, potential role for EAA systems in the health system, and future EAA projects that are currently being considered.
Results: In all four countries, health technology assessment (HTA) processes are used to prioritize the use of health resources, albeit at varying degrees and with different mechanisms and methodologies. EAA activities are still limited and there are virtually no institutions or units with specific functions explicitly devoted to EAA activity. However, most countries have developed some initial forms of EAA systems. Being in its initial stages there is no clear differentiation between these early awareness activities and other HTA functions, and no specific methodologies or processes are used to anticipate the emergence of new technologies. Consequently, early evaluation of technologies generally occurs in a reactive manner, after they have been introduced in the market and under the pressure of different stakeholders.
Conclusions: There is growing awareness that the early identification and assessment of emerging technologies should be an integral part of HTA and the decision-making process. Many initiatives are currently focusing on building partnerships between the various regulatory bodies involved in the incorporation of technologies at national levels. It is reasonable to foresee that EAA activities will continue to develop and expand in the region.

Keywords: Horizon Scanning, Latin America, Health Technology Assessment, Health Economic Evaluations, Developing Countries

Health technology assessment (HTA) processes are being increasingly used for evidence-based decision making in low- and middle-income countries (LMIC), which arguably have a greater need to prioritize the use of scarce resources (20). Latin America (LA) is a heterogeneous region with wide ethnic, cultural, and socioeconomic diversity (16) where most of the countries face major healthcare problems related to both equity and efficiency, in the context of pluralistic and fragmented healthcare systems. Fortunately, it is also a region which is increasing its use of HTA in decision making (2;3;9;12;17;18). HTA was formally used to shape benefit packages in Argentina, Uruguay, and Chile; and countries such as Brazil and Mexico have formal fourth hurdle systems in place that explicitly require HTAs to evaluate the incorporation or coverage of new technologies (1).

Our objective was to briefly describe the current state of early awareness and alert (EAA) activities and systems in four countries focusing on what is being done today, what the potential role is for EAA activity in these healthcare systems, and what future projects are currently being considered. Argentina, Brazil, Colombia, and Mexico are the largest countries in the region with a total population of more than 390 million, representing two thirds of the entire LA population. In all four countries, HTA processes are increasingly being adopted to prioritize the use of health resources, although at varying degrees and with different mechanisms and methodologies (1–3;9;12;16–18). Table 1 summarizes the main features of these countries regarding their health systems and HTA structures.

ARGENTINA

The two main organizations involved in HTA in the country are the Technology Assessment Coordination Unit from the National Ministry of Health (UCEETS in its Spanish acronym) and the Institute for Clinical Effectiveness and Health Policy (IECS).

UCEETS consists of a network of fourteen institutions and public health areas dedicated to HTA in the country. Its primary role is to coordinate national HTA efforts and to produce high quality information for the decision-making process. It does not yet have a formal structure dedicated specifically to EAA activity, although in some cases it has performed technology assessments requested by the regulatory agency for medicines

A. Pichon-Riviere received partial funding for this work from a Global Health Leadership Award from Global Health Research Initiative (a partnership of the Canadian International Development Agency, the Canadian Institutes for Health Research, Health Canada, and the International Development Research Centre). The other authors report having no potential conflicts of interest.

Table 1. Characteristics of Health Systems and HTA Structures

	Argentina	Brazil	Colombia	Mexico
Total population (2010) [1]	40,412,376	194,946,470	46,294,841	112,336,538
% with insurance coverage	50% Social Security, 10% Private, 40% Public-only	90%	70%	67%
Health expenditure per capita*	US$ 730 (9.5)	US$ 734 (9.0)	US$ 323 (6.4)	US$ 515 (6.5)
% of government expenditure**	66.4	45.7	84.2	48.3
Life Expectancy (years) [3]	75	73	76	76
Health Systems	Multitier system divided public sector, social security, and private sector	SUS Unique Health System (Universal Coverage), Private - Health Security Company's; Medical Cooperatives; HMO's; Employees Benefit	Social security system based on health insurance with two main schemes: the contributive scheme and the subsidized scheme.	Social security system (62%); Private (5%); Public System-Seguro Popular: aiming to achieve universal health coverage by 2012
Key institutions involved in HTA	UCEETS: Technology Assessment Coordination Unit from the National Ministry of Health. Its primary role is to coordinate national HTA efforts and to produce high quality information for the decision-making process. IECS: Institute for Clinical Effectiveness and Health Policy. Academic, independent, non-profit organization that has served as an HTA agency since 2001	ANVISA: Is the Brazilian regulatory agency for health technologies. It has an office of economic evaluation which defines drug prices based on HTA methods. DECIT (Department of Science and Technology): is the HTA unit within the MoH. CONITEC: National Commission for Technology Incorporation. Makes recommendations to the MOH on which technologies to publicly finance.	CRES: Health regulation expert committee. One of its key tasks is to define what to include in the mandatory health benefits package, POS. Decisions are meant to start taking into account the recommendations of the recently created health technology evaluation institute. IETS: Health Technology Evaluation Entity meant to provide technical recommendations to CRES on which technologies to fund (2012).	General Council of Health (GCH): defines the list of technologies and services upon submissions presented by the MoH, health providers, or manufacturers. Each public institution defines services and technologies within the list, according to needs and budget. CENETEC: National HTA agency that produces information on the appropriate incorporation and use of health technologies.
Use of Health Technology Assessment (HTA), Cost-Effectiveness analysis (CEA), Budget Impact Analysis (BIA)	Currently, HTA and CEA are not formally required.	ANVISA: HTA for all new pharmaceuticals during regulatory approval to inform the drug price definition process. CONITEC: HTA is required, by legislation, to define the incorporation of new technologies in the public system. It should include CEA. No explicit threshold defined. Sponsors can start the application and submit information.	HTA methods were applied to update the benefit package. CEA is not formally required.	HTA is required to define the incorporation of new technologies in the public and social security system. It should include CEA and BIA. One gross domestic product (GDP) per capita is considered an acceptable threshold for a QALY or a Life Year gained. Sponsors can start the application and submit information.

and devices (ANMAT) before making decisions on marketing authorization of specific products. Beyond this, EAA activities lie within UCEETS's priorities for the next few years, both at a national and regional level.

The IECS is an academic, independent, nonprofit organization that has served as an HTA agency since 2001. In 2003, IECS built a consortium composed of healthcare organizations from the public sector (e.g., Health Ministries at provincial or municipal level), social security sector, hospitals and private health insurances. To date, nearly forty different organizations are members of this consortium, commissioning IECS to prepare rapid HTA reports (HTArs) on an as-needed basis (18),

https://doi.org/10.1017/S0266462312000311 Published online by Cambridge University Press

Table 1. Continued

	Argentina	Brazil	Colombia	Mexico
Prioritization processes for topic selection	Topics are selected according to the MOH agenda and requests from different stakeholders. No formal prioritization process.	ANVISA: all pharmaceuticals evaluated to determine price. CONITEC: Topics selected according to MOH agenda and industry's submissions. Formal prioritization process carried out by DECIT to select topics for evaluation. No horizon scanning process formally established to inform topic selection.	No established process for topic selection. No horizon scanning process formally established to inform topic selection.	Topics are selected according to the MOH agenda and submissions made by the industry. There is no formal prioritization process. No horizon scanning process formally established to inform topic selection.

Note.
*Current US$, 2009 [2] and as percent of GDP [3].
**General government expenditure on health as a percentage of total expenditure on health [3]
Sources: (1) World Bank Data. Consulted October 9, 2011. http://data.worldbank.org/topic/health; (2) World Bank Data. Consulted October 9, 2011. http://data.worldbank.org/topic/health. Total health expenditure is the sum of public and private health expenditures as a ratio of total population. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health, but does not include provision of water and sanitation. Data are in current U.S. dollars, 2009. (3) Global Health Observatory Data repository. World Health Organization. Consulted October 18, 2011. http://apps.who.int/ghodata/?vid=710.
GDP, global domestic product; HTA, health technology assessment.

usually at the time of receiving their first request for using, or funding, a technology. These HTArs assist organizations in the decision-making process of new technologies that are not yet included or defined in the mandatory benefit package of Argentina (PMO in its Spanish acronym). Additionally, the HTA Unit of IECS performs horizon scanning activities, looking for technologies which could have a financial impact if demanded, by health services or users, for reimbursement in the near future. In the last ten years, IECS has issued more than 300 HTArs, which are available for consultation between 6 and 12 weeks after being requested. Around 40 percent of these HTArs were on interventional procedures such as implantable cardio defibrillators or deep brain stimulation, 20 percent of the documents evaluated diagnostic technologies such as PET and multislice computed tomography, and 40 percent evaluated drugs. Cancer-related reports were the most consulted (26 percent) followed by cardiovascular (12 percent) and osteomuscular disorder topics (12 percent). Most of the documents were used to define coverage and funding policies (46 percent), support a clinical decision (26 percent), elaborate a practice guideline (21 percent), or frame indications for a technology (23 percent).

These reports are disseminated through a monthly electronic newsletter targeted at more than 15,000 policy makers and other research users, mainly from Latin American countries. Abstracts from all the documents prepared, both in Spanish and English, can be accessed free from the IECS's Web site and are indexed in the Center for Reviews and Dissemination (CRD) hosted by The University of York and the INAHTA database.

BRAZIL

The institutionalization of a public policy for HTA began in 2003, when a strategy to enhance the State's regulatory capacity was established which explicitly included HTA in the national policy on health research. In 2005, the Brazilian Health Ministry formally established an HTA unit within the Department of Science and Technology (DECIT). Its main objective is to produce and fund studies to support decisions on coverage for drugs, vaccines, procedures, and medical devices in the public health system.

To complement this, in 2003 an Office of Economic Evaluation of Health Technologies was established within the national regulatory agency (ANVISA - National Health Surveillance Agency). Its main role is to provide technical support for the regulation of pharmaceutical prices based on HTA methods. Both DECIT and ANVISA are also involved in the standardization of HTA methods, capacity building and international cooperation.

The final decision on the incorporation and funding of new technologies is an attribute of the Ministry of Health, based on the recommendations of the National Commission

https://doi.org/10.1017/S0266462312000311 Published online by Cambridge University Press

on the Incorporation of Health Technologies (CONITEC, Law 12.401/2011), of which DECIT and ANVISA are a part.

In 2008, the Brazilian Ministry of Health brought together teaching and research institutions, health management organs and regulatory agencies to constitute the Brazilian Network for Health Technology Assessment (Rebrats). The goal of Rebrats is to disseminate HTA methods and applications, producing evaluations within the Brazilian context in a timely manner to properly assist the decision-making process. One of Rebrats's functions is to establish an alert system regarding new and emerging technologies for the public health systems (SUS). A permanent work group was established, and during a period of 2 years it carried out the following activities: (i) the identification of international guidelines and a review of literature; (ii) a workshop with eighteen technicians from the Ministry of Health, regulatory agencies, and public health programs; (iii) a workshop with thirty-one HTA experts, specialists in intellectual property, and innovation systems; (iv) the definition of guidelines for implementing the method in Brazil (4). The focus of the alert system will be on technologies that are in the initial phase of adoption and of high priority for the SUS. The defined priority criteria were: magnitude of the health problem, healthcare impact, technology characteristics, social pressures and innovation opportunities for Brazil. A pilot study, in partnership with university hospitals and regulatory agencies is programmed for 2011–2012 and will receive Ministry of Health financing. The study will conduct an analysis of a selected group of technologies in their initial phase of adoption, all directed toward the same health problem. The pilot study will allow the monitoring and early identification stages to be tested as well as the instruments and the flows of data collection for the main stakeholders, in addition to defining the dissemination strategies to promote the use of the information obtained. The Ministry of Health expects the alert system to be able to identify the technologies that are in the initial phase of adoption which need to be analyzed for appropriate use, and also to identify themes for future research aimed at improving access to and the quality of health care.

COLOMBIA

Since 2007, a mechanism to define the health technologies' package, to be funded with public resources, has been established in the Colombian Health System. The Health Regulatory Commission (CRES in its Spanish acronym), the governmental body responsible for determining which technologies should be included in this package (6), initiated a process of priority setting in 2010 to update the benefit package, based on HTA methods and carried out by external experts. This process began under significant pressure, in a health system experiencing serious financial problems, largely generated by the new technologies that have appeared in recent years. This process to update the benefit package was limited to the evaluation of a list of specific technologies, selected because at the time they represented a high financial burden for the health system (almost 1 billion USD$ in 2010). No other criteria were used to prioritize which technologies should be evaluated. Aspects such as the magnitude of the health problem in Colombia, or the expected healthcare impact of the technology, were not taken into account. As part of a program to assist the government in the institutionalization of HTA, this priority-setting process was evaluated by the Interamerican Development Bank with the support of the Minister of Health, the National Institute for Health and Clinical Excellence (NICE, UK), and the Institute for Clinical Effectiveness and Health Policy (IECS, Argentina) in early 2011. One of the main findings of this analysis was the weakness of the processes to select the technologies to be evaluated and eventually incorporated into the benefit package. It was considered that taking into account only financial criteria could involve serious distortions in the benefit package and in turn entail risks which have already been documented in other similar international experiences (8;15;22), such as missing an important technology to solve a major health problem, selecting irrelevant technologies, or inducing unnecessary demand. The lack of formal mechanisms for early identification of new technologies was identified as a major problem.

Due to these and other health system failures detected after the evaluation process, some regulatory decisions were taken, the most important of which was the 1438 law of 2011 which enacts the creation of the Health Technology Institute (IETS in its Spanish acronym) (5). The IETS will work closely with existing governmental agencies on a health technology system designed to build a rational filter for the most significant health technologies. For instance INVIMA (the drug and health technologies regulatory agency of Colombia) should inform the IETS on which innovations are going to be introduced into the market to anticipate the therapeutic value and its potential impact on the health system. The National Health Institute will provide the IETS with the epidemiological information, health-technology needs, and/or therapeutics gaps to allow IETS to properly evaluate new technologies being considered for incorporation.

At the same time, an issue of concern for horizon scanning and priority-setting process remains: How to manage stakeholders' strategies to scale up the market such as nonevidence based off-label prescription, or the promotion of emerging technologies as substitutes of current ones included in the benefit package. A potential solution is to monitor registers of clinical trials and patent pipelines, at a global or national level to establish an EAA system to assist in health decisions (19;21).

This overview shows the Colombian challenge taking advantage of political will and a positive regulatory environment to become one of the reference countries in the region using the horizon scanning approach as an integral part of the health resource allocation process. If Colombia adopts it, cooperation

https://doi.org/10.1017/S0266462312000311 Published online by Cambridge University Press

with emerging networks of experts in the region and other international networks would be required.

MEXICO

Traditionally, Health Technology Assessment efforts have focused on technologies once they are established in the market under a global context or when the technology has been incorporated in the public health system. In Mexico, HTA has been adopted as a national strategy to support the decision at different levels. The National Center for Health Technologies Excellence (CENETEC in its Spanish acronym) was established in 2004 as the HTA agency of the Mexican Ministry of Heath. Its mains goals are to standardize the methodology to perform HTA in the Mexican Health System, to generate HTA reports and to encourage the use of HTA in the decision-making process when incorporating innovative healthcare technologies (14).

However, the development of EAA systems is still incipient and the processes to adopt these methodologies have been delayed. The health system reform has encouraged the explicit incorporation of clinical, economic, ethical, and social criteria in the decision-making process to encourage the best use of resources and to improve the priority setting mechanisms (10). Therefore, several institutions in Mexico have developed tools to identify and assess new and emerging technologies. However, these efforts remain isolated with little or no central coordination and with varying degrees of development. In most cases, assessments are reactive, triggered once the technology has already been introduced and is being requested by the different actors of the health system.

Efforts are being made to raise awareness among stakeholders and policy makers on the importance of considering scientific evidence when incorporating technologies. However, the lack of a formal EAA processes is preventing the bridging of gaps between the potential impact of the technology on health services, the costs of care, accessibility, and health needs (9).

Therefore, CENETEC is creating alliances with the main regulatory institutions involved in the incorporation of technologies to establish appropriate mechanisms for early identification and timely evaluation. This includes, for example, the General Health Council, responsible for the definition of the benefit package and technology inclusion in the national formulary, and the Federal Commission for the Protection Against Sanitary Risk (COFEPRIS, responsible of sanitary regulation of technologies), as well as other regulatory bodies involved in the incorporation of technologies at national or regional levels.

Finally, the challenge for the Health System will be to maintain and expand these coordination and warning systems within MoH and between institutions of the health sector. This will be necessary to identify the most important gaps in population health priorities and to encourage the establishment of effective mechanisms to regulate the incorporation of new and emerging technologies.

NETWORKING INITIATIVES

The different HTA networking initiatives that arose in the region in the past years may also affect the future development of the EAA systems.

The Mercosur (Southern Common Market) is an economic and political agreement among Argentina, Brazil, Paraguay, and Uruguay. It has an HTA subcommittee that has been carrying out various activities, including academic and research programs, methodological guidelines for HTA and economic evaluations (11), and the development of mechanisms for sharing information. The Andean Community of Nations, a customs union comprising the South American countries of Bolivia, Chile, Colombia, Ecuador, Peru, and Venezuela, is also making progress in a similar regional initiative (7). In turn, the Pan American Health Organization (PAHO) is promoting the development of an HTA Latin American Network (RedETSA in its Spanish acronym) that was officially launched during the HTAi 2011 annual meeting in Rio de Janeiro (13).

The development of these networks and the establishment of mechanisms for generating and / or sharing information among countries, both at the level of the HTA and the regulatory agencies, may strengthen the EAA activities in the region. Another important aspect is the participation in international networks such as INAHTA, HTAi, or more specifically EuroScan. This is not only an excellent opportunity to take advantage of the important production and availability of EAA information from other regions but is also a way in which the region can contribute, with local information, to the international efforts in the field of HTA and EAA activities. It is not unusual for new technologies to be available in Latin America before availability in Europe or other developed countries.

CONCLUSIONS

Although HTA is increasingly used to prioritize the adoption of health technologies, EAA experiences are still limited in the region and there are virtually no institutions or units with specific functions explicitly devoted to EAA activity. However, most countries have developed some initial forms of EAA activity, mainly in the context of existing HTA units. Being in its initial stages, in most cases there is no clear differentiation between these early awareness activities and other HTA functions, and no specific methodologies or processes are used to anticipate the emergence of new technologies. Consequently, early evaluation of technologies generally occurs in a reactive manner, after they have been introduced in the market and under the pressure of different stakeholders.

Despite these limitations, there is growing awareness that the early identification, prioritization, and assessment of new or emerging technologies is crucial and should be an integral part of HTA and the decision-making process. Many initiatives are currently focusing on building partnerships between the various regulatory bodies involved in the incorporation of health

https://doi.org/10.1017/S0266462312000311 Published online by Cambridge University Press

innovations at national levels in an attempt to establish appropriate mechanisms for communication and coordination with the ultimate goal of guaranteeing the early identification and timely evaluation of new technologies.

It is reasonable to foresee that EAA activities will continue to develop and expand in the region, accompanied by the rapid diffusion already observed in the case of HTA.

CONTACT INFORMATION

Andres Pichon-Riviere, MD, MSc, PhD, Institute for Clinical Effectiveness and Health Policy (IECS), Argentina, email: apichon@iecs.org.ar
Flávia Tavares Silva Elias, Ministry of Health, Brazil
Verónica Gallegos Rivero, BME, MHSA Ministry of Health, México
Claudia P. Vaca, MSc, National University of Colombia, Colombia

CONFLICTS OF INTEREST

A. Pichon-Riviere received partial funding for this work from a GlobalHealth Leadership Award from Global Health Research Initiative (apartnership of the Canadian International Development Agency, the Canadian Institutes for Health Research, Health Canada, and the International Development Research Centre). The other authors reporthaving no potential conflicts of interest.

REFERENCES

1. Augustovski F, Bastardo Y, Caso A, et al. Pharmacoeconomics and outcomes research in Latin America: Argentina, Brazil, Chile, Colombia, and Mexico. *ISPOR Connections*. 2008.
2. Banta D, Almeida RT. The development of health technology assessment in Brazil. *Int J Technol Assess Health Care.* 2009;25(Suppl 1):255-259.
3. Banta D. Health technology assessment in Latin America and the Caribbean. *Int J Technol Assess Health Care*. 2009;25(Suppl 1):253-254.
4. Brasil. Ministério da Saúde. Secretaria de Ciência, Tecnologia e Insumos Estratégicos. Departamento de Ciência e Tecnologia. Monitoramento do horizonte tecnológico em saúde no âmbito da Rebrats: Proposta preliminar. Brasília: Ministério da Saúde, 2011 52 p. Série B. Textos básicos em saúde. (ISBN: 978-85-334-1807-3).
5. Colombia. Ministerio de Protección Social. Ley 1438. Por medio de la cual se reforma el Sistema General de Seguridad Social en Salud y se dictan otras disposiciones.," in MPS, ed., Cap. 5 Art. 92, ley 1438. Ministerio de Protección Social 2011. http://www.minproteccionsocial.gov.co/Normatividad/Forms/AllItems.aspx (accessed July 1, 2011).
6. Colombia. Ministerio de Protección Social. Ley 1122. Por la cual se hacen algunas modificaciones en el Sistema General de Seguridad Social en Salud y se dictan otras disposiciones. Ministerio de Protección Social 2007, B., ed., Art. 3 -Art. 7, ley 1122. http://www.minproteccionsocial.gov.co/Normatividad/Forms/AllItems.aspx (accessed July 1, 2011).
7. Comisión Técnica Subregional de Evaluación de Tecnologías Sanitarias. Situación de la Evaluación de Tecnologías Sanitarias 2010. [Subregional Technical Committee for Health Technology Assessment. Current status of HTA in the region]. Organismo Andino dde Salud, Convenio Hipólito Unaue, 2010. http://www.orasconhu.org/sites/default/files/Situacion%20ETS%2020%2007%2010_1.pdf (accessed August 1, 2011).
8. Douw K, Vondeling H. Selection of new health technologies for assessment aimed at informing decision making: A survey among horizon scanning systems. *Int J Technol Assess Health Care*. 2006;22:177-183.
9. Gomez-Dantes O, Frenk J. Health technology assessment in Mexico. *Int J Technol Assess Health Care.* 2009;25(Suppl 1):270-275.
10. González-Pier E, Gutiérrez-Delgado C, Stevens G, et al. Definición de prioridades para las intervenciones de salud en el Sistema de Protección Social en Salud de México. *Salud Publica Mex*. 2007;49(Suppl I):S37-S52.
11. Guía Para la Elaboración de Informes de Evaluación de Tecnologías Sanitarias. Mercosur (2008) www.saludinvestiga.org.ar/pdf/resoluciones/Res-52-08_ES_GuiaElaboInfTecnoSanit.pdf (accessed July 1, 2011).
12. Iglesias CP, Drummond MF, Rovira J. Health-care decision-making processes in Latin America: Problems and prospects for the use of economic evaluation. *Int J Technol Assess Health Care*. 2005;21:1-14.
13. Lanzamiento de Red de Evaluación de Tecnologías Sanitarias (REDETSA). Pan American Health Organization, 2011. http://new.paho.org/col/index.php?option=com_content&task=view&id=1180&Itemid=259.
14. Mexico. Secretaría de Salud. Programa de Acción Específico, Evaluación de Tecnologías para la Salud. México, 2008. www.cenetec.salud.gob.mx/descargas/PAES/ETES.pdf (accessed July 1, 2011).
15. O'Malley S, Jordan E. Horizon scanning of new and emerging medical technology in Australia: Its relevance to Medical Services Advisory Committee health technology assessments and public funding. *Int J Technol Assess Health Care*. 2009;25:374-382.
16. Pan American Health Organization. *Health in the Americas 2007. Volume II: Countries*. Scientific and Technical Publication No. 622. Washington, Pan American Health Organization, 2007.
17. Pichon-Riviere A, Augustovski F, Rubinstein A, Garcia-Marti S, Sullivan S, Drummond M. Health technology assessment for resource allocation decisions: Are key principles relevant for Latin America? *Int J Technol Assess Health Care.* 2010;26:421-427.
18. Rubinstein A, Pichon-Riviere A, Augustovski F. Development and implementation of health technology assessment in Argentina: Two steps forward and one step back. *Int J Technol Assess Health Care.* 2009;25(Suppl 1):260-269.
19. Simpson S, Packer C, Carlsson P, et al. Early identification and assessment of new and emerging health technologies: Actions, progress, and the future direction of an international collaboration—EuroScan. *Int J Technol Assess Health Care*. 2008;24:518-525.
20. Singer ME. Cost-effectiveness analysis: Developing nations left behind. *Pharmacoeconomics*. 2008;26:359-361.
21. Stevens A, Packer C, Robert G. Early warning of new health care technologies in the United Kingdom. *Int J Technol Assess Health Care*. 1998;14:680-686.
22. Tobar F. Economía de los medicamentos genéricos en América Latina. *Rev Panam Salud Publica.* 2008:59-67.